

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claims 1-11 (Cancelled).

12. **(Previously Presented)** A method comprising:

comparing a bit stream derived from a received digital data stream with an expected bit sequence to determine a correlation value for detecting a data packet;

starting data extraction from the bit stream when the correlation value exceeds a threshold value to indicate that a data packet has been detected;

storing the correlation value that exceeds the threshold value as a maximum correlation value for use as a new threshold value;

continuing comparing the bit stream with the expected bit sequence to determine a new correlation value; and

restarting data extraction from the bit stream when the new correlation value exceeds the stored maximum correlation value.

13. **(Previously presented)** The method as claimed in claim 12, wherein the threshold value is a programmable value.

14. **(Previously presented)** The method as claimed in claim 12, wherein the correlation value is stored as the maximum correlation value each time data extraction is started or restarted and the new correlation value continuously determined after starting or restarting data extraction is compared with the stored maximum correlation value.

15. **(Previously presented)** The method as claimed in claim 12, wherein data extracted prior to restarting data extraction is rejected.

16. **(Previously presented)** The method as claimed in claim 12, wherein after detecting a data packet an initial timing estimate is determined prior to starting data extraction that synchronizes sampling of bits from a data stream for data extraction with data stream symbols.

17. **(Previously presented)** The method as claimed in claim 16, wherein timing of the sampling of bits is continuously tracked by comparing timing of symbols within an oversampled bitstream with actual timing of the sampling of bits and correcting the timing of the

sampling of bits if a deviation between the timing of the sampling of bits and the timing of the symbols exceeds a value.

18. **(Previously Presented)** An apparatus comprising:

a data extraction unit configured to extract data from a received data stream;

a packet detector configured to compare a bit stream derived from a received digital data stream with an expected bit sequence to determine a correlation value for detecting a data packet, the packet detector comprising means for comparing the received bit stream with the expected bit sequence after starting data extraction to determine a new correlation value; and

a sync-control circuit configured to receive the correlation value from the packet detector, the sync-control circuit configured to control the data extraction unit for starting or restarting data extraction from the bit stream when the correlation value exceeds a threshold value or a stored maximum correlation value indicating that a data packet has been detected, and configured to store the correlation value that exceeds the threshold value as a maximum correlation value for use as a new threshold value.

19. **(Previously Presented)** The apparatus as claimed in claim 18, wherein the apparatus comprises an initial timing estimator configured to receive the digital data stream and configured to determine an initial timing estimate prior to starting data extraction for synchronizing data extraction with data stream symbols, the initial timing estimate being output to the sync-control circuit.

20. **(Previously Presented)** The apparatus as claimed in claim 18, wherein the data extraction unit comprises a DC estimator configured to derive a DC estimate from the received data stream, a comparator configured to perform a bit decision on data of the received data stream to derive an oversampled bit stream, the comparator including first and second inputs configured to receive the DC estimate from the DC estimator and the data stream, respectively, and a sample-and-hold module configured to sample the oversampled bit stream received from the comparator.

21. **(Previously Presented)** The apparatus as claimed in claim 20, wherein the data extraction unit comprises a timing estimator configured to receive the oversampled bit stream output by the comparator for tracking the initial timing and for controlling the sample-and-hold module.

22. **(Previously presented)** The method of claim 12 further comprising synchronizing the received bit stream based on the stored maximum correlation value.

23. **(Previously Presented)** The apparatus of claim 18 wherein the sync-control circuit further synchronizes the received data stream based on the stored maximum correlation value.

24. **(Previously Presented)** An apparatus comprising:

a data extraction unit configured to extract data from a received data stream;

a packet detector configured to compare a bit stream derived from a received digital data stream with an expected bit sequence to determine a correlation value for detecting a data packet, the packet detector further configured to compare the received bit stream with the expected bit sequence after starting data extraction to determine a new correlation value; and

a sync-control circuit configured to receive the correlation value from the packet detector, the sync-control circuit configured to control the data extraction unit for starting or restarting data extraction from the bit stream when the correlation value exceeds a threshold value or a stored maximum correlation value indicating that a data packet has been detected, and configured to store the correlation value that exceeds the threshold value as a maximum correlation value for use as a new threshold value.

25. **(Previously Presented)** The apparatus of claim 24 wherein the sync-control circuit is further configured to synchronize the received data stream based on the stored maximum correlation value.

26. **(Previously Presented)** The apparatus as claimed in claim 24, wherein the apparatus comprises an initial timing estimator which receives the digital data stream configured to determine an initial timing estimate prior to starting data extraction for synchronizing data extraction with data stream symbols, the initial timing estimate being output to the sync-control circuit.

27. **(Previously Presented)** The apparatus as claimed in claim 24, wherein the data extraction unit comprises a DC estimator configured to derive a DC estimate from the received data stream, a comparator configured to perform a bit decision on data of the received data stream to derive an oversampled bit stream, the comparator including first and second inputs for receiving the DC estimate from the DC estimator and the data stream, respectively, and a

sample-and-hold module configured to sample the oversampled bit stream received from the comparator.

28. **(Previously Presented)** The apparatus as claimed in claim 27, wherein the data extraction unit comprises a timing estimator configured to receive the oversampled bit stream output by the comparator for tracking the initial timing and for controlling the sample-and-hold module.